

WHAT IS CLAIMED IS:

- 1 1. A vehicle closure hinge for a vehicle body with a compartment
2 opening defined by a peripheral channel, the hinge comprising:
3 a link assembly forming a scissors link for displacing said closure
4 with respect to said opening;
5 a spring, integrally carried by said link assembly, and having a
6 laterally coiled strand, said coil having a first coil end with a first strand end, an
7 opposite end, and a second strand portion extending across the coil from said
8 opposite coil end to said first coil end, to engage said link assembly at said first coil
9 end; and
10 a mount securing said link to said vehicle body in said peripheral
11 channel.
- 1 2. The invention as defined in claim 1 wherein said integral
2 assembly is installed as a unit in said channel.
- 1 3. The invention as defined in claim 1 wherein said strand is
2 geometrically shaped to adjust spring biasing tension in said coil.
- 1 4. The invention as defined in claim 1 wherein said strand has
2 a rectangular cross section.
- 1 5. The invention as defined in claim 4 wherein said cross section
2 is square.
- 1 6. The invention as defined in claim 1 wherein said link
2 assembly comprises a Watt six bar mechanism.
- 1 7. The invention as defined in claim 6 wherein at least two bars
2 in said link assembly are duplicates.

1 8. A method for reducing the packaging footprint of a vehicle
2 closure hinge comprising:
3 integrating a scissors link assembly with a laterally coiled strand
4 biasing spring, and
5 selecting a strand shaping to reduce the radial dimension of said coils.

1 9. The invention as defined in claim 8 wherein said vehicle
2 closure covers a vehicle opening peripherally defined by a channel, and wherein
3 reducing further comprises:
4 positioning said integrated link assembly and biasing spring as a unit
5 in said channel.

1 10. The invention as defined in claim 7 and further comprising
2 mounting said integrated link assembly and biasing spring in said channel.

1 11. The invention as defined in claim 8 wherein said selecting
2 comprises limiting the diameter of coil.

1 12. The invention as defined in claim 8 wherein said selecting
2 comprises enhancing the material mass in the strand.

1 13. The invention as defined in claim 8 wherein said selecting
2 comprises shaping as a rectangle.

1 14. The invention as defined in claim 11 wherein said shaping
2 comprise shaping as a square.

1 15. A vehicle closure hinge for a vehicle body with a compartment
2 opening and a closure panel, the hinge comprising:
3 a Watt six-bar link assembly forming a scissors link for displacing
4 said closure with respect to said opening; and
5 a spring, integrally carried by said link assembly, and having a
6 laterally coiled strand, said coil having a first coil end with a first strand end, an

7 opposite coil end, and a second strand portion extending across the coil from said
8 opposite coil end to said first coil end, to engage said link assembly at said first coil
9 end.

1 16. The invention as defined in claim 15 and comprising a mount
2 installing said link as a unit in said vehicle body.

1 17. The invention as defined in claim 15 wherein the opening is
2 defined by a peripheral channel and said mount is within said peripheral channel.